

No. 6. — *On certain Species of Chelonioidea.* By SAMUEL GARMAN.

In this notice three species of Sea Turtles are mentioned, of which two are supposed to be new.

About three years ago, Richard M. Kemp, of Florida, directed my attention to a peculiar Turtle, commonly called the "Bastard," found in the Gulf of Mexico, and said to be a cross between the Green and Loggerhead, *Chelonia mydas* and *Thalassochelys caouana*. At a later date he secured for the Museum a pair of fine specimens, which furnish the material for a description given below. In consideration of the great interest Mr. Kemp takes in matters pertaining to natural history, it is most appropriate that the species he has been the means of bringing into notice should bear his name.

There is considerable likelihood that the other species, of which descriptions are given, have heretofore been considered as one, *Chelonia virgata*. If this has been the case, a very slight comparison of the characters assigned will convince any one of the necessity of separation. Of the various names that have been applied by different authors to *C. virgata*, none can be said with certainty to belong to the flat, broad species which has probably been associated with it. Consequently, it is thought better to apply a name not previously employed in connection with either of them, thus avoiding confusion, rather than to make use of a synonyme concerning which there will always exist more or less doubt.

***Thalassochelys Kempii* sp. nov.**

Body depressed, short, broad, subcircular, with a slight concavity over the lateral marginal plates of the carapace, and without the prominent rounded hump on the vertebral series over the pelvis or shoulder girdle, as in *T. caouana*. Head intermediate in size between that of *T. caouana* and that of *Chelonia mydas*, crown slightly convex. There is a shallow depression from the eye forward. Looking from above, the outline of the face is much more convex than in either of the species cited. A low, broad, rounded ridge extends from the nostrils to the point on the end of the beak. The lateral outline of the jaws

is very convex forward. Upper jaw without serrations, lower outline forming a sigmoid curve, convex posteriorly, and concave near the extremity, where it suddenly descends to the sharp point at the symphysis. The greatest convexity occurs at a point below and in front of the eye. Lower jaw strong, without serrations, upper edge concave, curving upward in a point on the symphysis. Frontals, two pairs. Vertical small, narrow, hexangular. Two supraorbitals on each side. Interparietal large, broad, surrounded by thirteen plates (9-13). Postorbitals, three, upper small, lower narrow, elongate. Carapace with little or no indication of a hump on the first or ultimate vertebral plates, outline slightly straightened over the hind legs, indented over neck and arms, with five shields in each series of costals and the vertebral. Anterior vertebral shield short and narrow, second to fourth narrow and long, posterior longer and wider. First pair of costals small. Marginal plates, twenty-seven, anterior very narrow, becoming wide on the flanks from the fourth. From the middle of the body back the marginal shields are subequal, excepting the caudal pair, which are wider, but without being produced beyond the general outline. Eight or ten of the posterior marginal bones of the skeleton are joined by suture to the broad costals, making for the hinder half of the carapace nearly solid bone. Paddles medium, each with two nails, anterior long and narrow, posterior short and broad, margins indented between the digits.

In one specimen the width and length are equal, twenty-six inches; in the other, the width is twenty-nine inches, while the length is only twenty-eight. Both are quite aged, as is shown by the ossification of skull and carapace, and by the worn appearance of jaws and scales.

Distinguished from *T. caouana* by the short, round body, low humps, marginal plates, narrowness of head across occiput, and swollen jaws; from *T. olivacea* by shape of head, swollen jaw, and plates of the carapace. The compression of the anterior portion of the head of *T. olivacea* at once separates the species.

"The Bastard Turtle are common. We know that they come on the beach to lay in the months of December, January, and February, but cannot tell how often, or how many eggs they lay at a time. They can be secured quite readily, but are not sought for. Hawksbill, Loggerhead, and Green Turtle lay in April, May, and June." (Kemp.)

Some of the characters by which this turtle is distinguished from *caouana* and *olivacea* are of more than specific importance, — namely, shape of head and body, and skeletal peculiarities. According them a subgeneric value, the habitat suggests the name *Colpochelys*, from *κόλπος*, a gulf. This will give to this species the name *Colpochelys Kempii*, Kemp's Gulf Turtle.

***Chelonia depressa* sp. nov.**

Young. — Body a broad oval; head large, rounded posteriorly, occiput convex, flattened between and compressed in front of the eyes. Jaws not serrate (in very young), upper with a shallow notch in front, lower with a sharp

curved prominence at the symphysis. Carapace broad, arch comparatively low, with three low ridges, slightly concave near the margin. Paddles broad, rounded on the margins.

Adult. — Body broad, depressed, subelliptical, broadest near or behind the middle, concave near the lateral margins, flattened over the second to the fourth vertebral plates; head larger and broader than that of *C. mydas* or *C. virgata*, broad posteriorly, convex on the occiput, flattened between and compressed in front of the eyes. Upper jaw not serrated, outline nearly straight, with the notch at the symphysis almost obliterated, vertically grooved on the inner face. Lower jaw serrated, bearing a curved fang-like prominence on the symphysis. Carapace broad and spreading posteriorly, arch very low. Paddles comparatively small, anterior narrow and pointed, posterior short, truncate, indented between the digits. One pair of elongate frontals. Vertical small, short, broad, pentagonal, acute-angled in front. Supraocular large, broad. Interparietal broader than long, surrounded by seven plates, vertical, supraoculars, parietals, and occipitals. Postorbitals four (3–4), lower large. Plates of carapace not imbricate, smooth in young and adult, costal series four each, five vertebrals, and twenty-five marginals. Sternal plates thirteen, in two series of six each, preceded by a small triangular plate at the neck. Lateral plates of plastron four on each side, preceded by a pair of small, and these again by several smaller brachials. The specimens described are from the East Indies and North Australia. Applying the line to the shell the Australian specimen measures in length $36\frac{1}{2}$ inches, and in width 30 inches; its height is 9 inches. A specimen of *C. mydas* has a length of $39\frac{3}{4}$ inches, a width of $34\frac{1}{2}$ inches, and a height of 11 inches.

C. depressa differs much from the species described by Dumeril and Bibron as *C. virgata*. It is less truncated and more deeply indented in front than either of the other species of the genus. A transverse section across the middle of the body is not what would be called roof-shaped, but more of the shape of a bow of considerable curvature, a portion of the middle of which is straight, and of which the extremities are sharply turned upward. The sides are not strongly arched, and the cross-section of a large specimen could not be described as forming an open angle. The broadness of the head, the marked difference in shape from that of *C. mydas*, and the concavity near the lateral margins, could not have escaped the notice of the authors of the *Erpétologie Générale*, if there were specimens of this species at hand. Their description applies either to the species renamed by Dumeril and Bocourt *C. Agassizii*, or to one much more closely allied to it than that described above. If the separation of *C. Agassizii* from *C. virgata* of authors is right, there exists a third species of *Chelonia* in the Northwestern Pacific and the northern part of the Indian Ocean. The specimens from which the description in the *Erp. Gén.* was taken were said to be from Teneriffe, Rio Janciro, Cape of Good Hope, New York, and the Indian Ocean, which distribution can leave little doubt that they were of more than one species.

Chelonia Agassizii DUMERIL & BOCOURT, 1870.? *Chelonia virgata* SCHWEIGGER, 1814.*Chelonia virgata* AGASSIZ, 1857.

Carapace subcordiform, considerably arched, narrow posteriorly; margin with a shallow indentation over neck and each arm, and a deeper one over each leg. Head moderate, about the size and shape of that of *C. mydas*, more compressed and pointed in front of the eyes than that of *C. depressa*. Upper jaw not serrate on the edge, with grooves on the inner face corresponding to the teeth on the lower, with a slight notch in front. Lower jaw serrated on the edge, bearing a prominent curved point on the symphysis. Serration of jaw not apparent in very young specimens. Frontal plates one pair, sometimes subdivided. Vertical small, narrow. One supraocular on each side. Interparietal moderate, surrounded by seven plates; supraoculars and vertical in front, and a pair of large plates behind on the occiput. Postoculars four. Central plates of carapace thirteen, vertebral series five, anterior and posterior wider, posterior costals and vertebrales sometimes divided; marginals twenty-five, posterior sometimes fused. The anterior and posterior plates of back are rather suddenly bent downward near the margin. The tail of the male is longer; it appears that the pointed extremity of the carapace is also more elongate in this sex.

Specimens described from the eastern portion of the tropical Pacific.

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